

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A semiconductor device comprising:

an antenna;

an integrated circuit comprising a thin film transistor;

a light-receiving element configured to receive a signal by optical communication;

and

a light-emitting element configured to transmit a signal by optical communication,

wherein the light-emitting element and the light-receiving element each have has a layer for conducting photoelectric conversion using a non-single crystal thin film,

wherein the light-emitting element has an electroluminescent layer using a non-single crystal thin film,

wherein the integrated circuit includes a power supply circuit configured to generate a power supply voltage by using an alternating voltage generated by the antenna, and

wherein the antenna, the light-emitting element and the light-receiving element are electrically connected to the integrated circuit on the same substrate.

2. (Currently Amended) A semiconductor device comprising:

an antenna;

an integrated circuit comprising a thin film transistor;

a light-receiving element configured to receive a signal by optical communication;

and

a light-emitting element configured to transmit a signal by optical communication,

wherein the antenna, the light-emitting element and the light-receiving element are electrically connected to the integrated circuit,

wherein the integrated circuit includes a power supply circuit configured to generate a power supply voltage by using an alternating voltage generated by the antenna, and

wherein the integrated circuit, the light-emitting element and the light-receiving element are formed on the same substrate.

3. (Currently Amended) A semiconductor device comprising:

an antenna;

an integrated circuit comprising a thin film transistor;

a light-receiving element configured to receive a signal by optical communication;

and

a light-emitting element configured to transmit a signal by optical communication,

wherein the antenna, the light-emitting element and the light-receiving element are electrically connected to the integrated circuit,

wherein the integrated circuit includes a power supply circuit configured to generate a power supply voltage by using an alternating voltage generated by the antenna, and

wherein the antenna, the integrated circuit, the light-emitting element and the light-receiving element are formed on the same substrate.

4. (Currently Amended) A semiconductor device comprising:

an integrated circuit;

a light-receiving element configured to receive a signal by optical communication;

and

a light-emitting element configured to transmit a signal by optical communication,

wherein the integrated circuit comprises a connection terminal, a rectification circuit configured to rectify an alternating voltage generated by an antenna, a power supply circuit configured to generate a power supply voltage by using a voltage outputted from the rectification circuit, a demodulation circuit, and a logic circuit, and

wherein the integrated circuit, the light-emitting element and the light-receiving element are formed on the same substrate.

5. (Currently Amended) A semiconductor device comprising:

an antenna;

an integrated circuit comprising a thin film transistor;

a light-receiving element configured to receive a signal by optical communication;

and

a light-emitting element configured to transmit a signal by optical communication,

wherein the light-emitting element and the light-receiving element each have has a layer for conducting photoelectric conversion using a non-single crystal thin film,

wherein the light-emitting element has an electroluminescent layer using a non-single crystal thin film.

wherein the antenna, the light-emitting element and the light-receiving element are electrically connected to the integrated circuit,

wherein the integrated circuit, the light-emitting element and the light-receiving element are attached to a substrate with an adhesive agent, and

wherein the integrated circuit includes a power supply circuit configured to generate a power supply voltage by using an alternating voltage generated by the antenna.

6. (Currently Amended) A semiconductor device comprising:

an antenna;

an integrated circuit comprising a thin film transistor;

a light-receiving element configured to receive a signal by optical communication;
and

a light-emitting element configured to transmit a signal by optical communication,
wherein the antenna, the light-emitting element and the light-receiving element
are electrically connected to the integrated circuit,

wherein the integrated circuit, the light-emitting element and the light-receiving
element are attached to a substrate with an adhesive agent, and

wherein the integrated circuit includes a power supply circuit configured to
generate a power supply voltage by using an alternating voltage generated by the
antenna.

7. (Currently Amended) A semiconductor device comprising:
an antenna;
an integrated circuit comprising a thin film transistor;
a light-receiving element configured to receive a signal by optical communication;
and

a light-emitting element configured to transmit a signal by optical communication,
wherein the antenna, the light-emitting element and the light-receiving element
are electrically connected to the integrated circuit,

wherein the antenna, the integrated circuit, the light-emitting element and the
light-receiving element are attached to a substrate with an adhesive agent, and

wherein the integrated circuit includes a power supply circuit configured to
generate a power supply voltage by using an alternating voltage generated by the
antenna.

8. (Currently Amended) A semiconductor device comprising:
an integrated circuit;

a light-receiving element configured to receive a signal by optical communication;
and

a light-emitting element configured to transmit a signal by optical communication,
wherein the integrated circuit comprises a connection terminal, a rectification
circuit configured to rectify an alternating voltage generated by an antenna, a power
supply circuit configured to generate a power supply voltage by using a voltage
outputted from the rectification circuit, a demodulation circuit, and a logic circuit,

wherein the integrated circuit, the light-emitting element and the light-receiving
element are formed integrally, and

wherein the integrated circuit, the light-emitting element and the light-receiving
element are attached to a substrate with an adhesive agent.

9. (Previously Presented) The semiconductor device according to any one of
Claims 5 to 8, wherein the substrate is a plastic substrate.

10. (Currently Amended) An IC card comprising:

an antenna;

an integrated circuit comprising a thin film transistor;

a light-receiving element configured to receive a signal by optical communication;

and

a light-emitting element configured to transmit a signal by optical communication,

wherein the antenna, the light-emitting element and the light-receiving element
are electrically connected to the integrated circuit,

wherein the integrated circuit includes a power supply circuit configured to
generate a power supply voltage by using an alternating voltage generated by the
antenna, and

wherein the integrated circuit, the light-emitting element and the light-receiving
element are formed on the same substrate.

11. (Previously Presented) The IC card according to claim 10, wherein the antenna, the integrated circuit, the light-emitting element and the light-receiving element are formed on the same substrate.

12. (Currently Amended) An IC card comprising:
an integrated circuit;
a light-receiving element configured to receive a signal by optical communication;
and
a light-emitting element configured to transmit a signal by optical communication,
wherein the integrated circuit comprises a connection terminal, a rectification circuit configured to rectify an alternating voltage generated by an antenna, a power supply circuit configured to generate a power supply voltage by using a voltage outputted from the rectification circuit, a demodulation circuit, and a logic circuit, and
wherein the integrated circuit, the light-emitting element and the light-receiving element are formed on the same substrate.

13. (Currently Amended) An IC card comprising:
an antenna;
an integrated circuit comprising a thin film transistor;
a light-receiving element configured to receive a signal by optical communication;
and
a light-emitting element configured to transmit a signal by optical communication,
wherein the antenna, the light-emitting element and the light-receiving element are electrically connected to the integrated circuit,
wherein the integrated circuit, the light-emitting element and the light-receiving element are attached to a substrate with an adhesive agent,

wherein the integrated circuit includes a power supply circuit configured to generate a power supply voltage by using an alternating voltage generated by the antenna.

14. (Previously Presented) The IC card according to claim 13, wherein the antenna and the integrated circuit in addition to the light-emitting element and the light-receiving element are attached to the substrate with an adhesive agent.

15. (Previously Presented) The IC card according to claim 12, wherein the integrated circuit, the light-emitting element and the light-receiving element are attached to a substrate with an adhesive agent.

16. (Currently Amended) The IC card according to any one of Claims [[13 to 15]]12-13, wherein the substrate is a plastic substrate.